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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/936,510	09/24/1997	YONG BEOM KIM	8733.20056	9825
30827	7590	05/10/2004	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			CHOWDHURY, TARIFUR RASHID	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s) <i>AK</i>	
	08/936,510	KIM, YONG BEOM	
	Examiner	Art Unit	
	Tarifur R Chowdhury	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,14,16,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,14,16,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

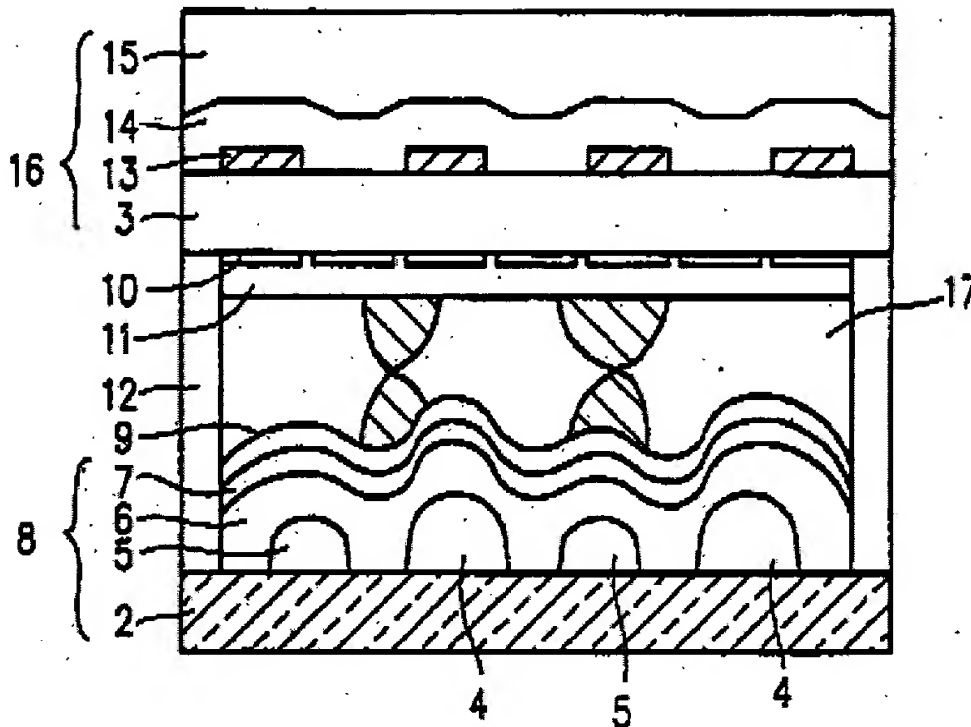
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitsui et al., (Mitsui), USPAT 5,559,617.**

3. Mitsui discloses and shows in Fig. 1, a reflection-type liquid crystal display device, comprising:

- first (2) and second (3) substrates;
- a reflective electrode (7) over the first substrate (2), wherein the reflective electrode comprises metal such as aluminum, chromium etc. (applicant's opaque metal) (col. 5, lines 59-62);
- a liquid crystal layer (17) disposed interjacent the first and second substrates;
- two uniaxial optical compensation films (13,14) (col. 6, lines 11-13) of a same type (col. 10, lines 58-63; col. 12, lines 14-23) over the second substrate (3);
- and
- a first alignment layer (9) over the first substrate (2) (col. 6, lines 28-29).

FIG. 1



Accordingly, claim 1 is anticipated.

As to claim 14, since the method of manufacturing the device is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsui in view of Arakawa, USPAT 5,189,538.**

6. Mitsui differs from the claimed invention because he does not explicitly disclose that compensation films are positive-type.

Arakawa discloses a liquid crystal display having compensation films. Arakawa further discloses that by utilizing uniaxial compensation films of positive-type in a liquid crystal display, it is possible to widen the viewing angle (col. 3, lines 54-55; col. 4, lines 23-27).

Arakawa is evidence that ordinary workers in the art would find a reason, suggestion or motivation to use uniaxial compensation films of positive-type.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display device of Mitsui by employing positive-type uniaxial optical compensation films so that viewing angle is widened, as per the teachings of Arakawa.

Accordingly, claims 4 and 16 would have been obvious.

7. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsui as applied to claims 1 and 14 above and in view of Sugiyama et al., (Sugiyama), USPAT 5,757,455.

8. Mitsui differs from the claimed invention because he does not explicitly disclose that the alignment layer having a plurality of alignment direction over the first substrate.

Sugiyama discloses a liquid crystal display device having good visual angle characteristics including a first alignment film with a plurality of first alignment direction, where at least two of the plurality of first alignment directions is either perpendicular or parallel to one another (Fig. 6G), formed on the first substrate (col. 1, lines 63-64; col. 2,

lines 5-13). Sugiyama further discloses that the method of manufacturing such a device includes a method of forming the alignment layer by either rubbing or exposing number of times in accordance with the number of alignment directions to polarize ultraviolet rays to form the alignment directions (col. 4, lines 28-49; col. 5, lines 26-28).

Sugiyama is evidence that ordinary workers in the art would find a reason, suggestion or motivation to form alignment layer having plurality of alignment direction by either rubbing or exposing the alignment layer to ultraviolet light.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display device of Mitsui by forming alignment layers having plurality of alignment direction by either rubbing or exposing the layer to ultraviolet light in order to obtain good visual angle characteristics.

Accordingly, claims 20 and 21 would have been obvious.

Response to Arguments

9. Applicant's arguments filed on 02/13/04 have been fully considered but they are not persuasive.

In response to applicant's argument that Mitsui does not explicitly disclose that the optical phase compensation members are uniaxially stretched, it is respectfully pointed out to applicant that Mitsui discloses that both optical compensation members are made of polycarbonate that are stretched and since polycarbonate is inherently a uniaxially oriented polymer film unless disclosed otherwise the optical compensation members are inherently uniaxially stretched. Further, Applicant's attention is respectfully

requested to Figure 6 of Mitsui, which shows only one optical axis for each of the optical compensation films.

In response to applicant's argument that Mitsui is silent about the two optical compensation films being of a same type, it is respectfully pointed out to applicant that Mitsui discloses that both of the optical compensation films are made of a same material such as polycarbonate and thus of a same type.

Therefore, the rejection was proper and thus maintained.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

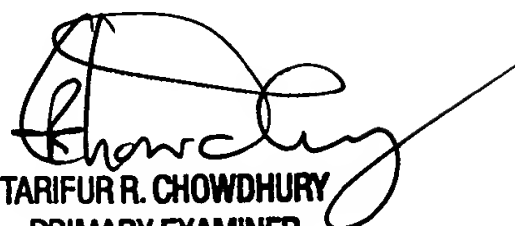
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

Art Unit: 2871

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC
05/04/04



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER